Math 118 Fall 2002
Homework 1

NAME: **E-MAIL:**

Let $P = P(t)$ be a function that represents the size of a population at some time t. Consider the following differential equation: $P' = .017P$. This differential equation is an example of a "population growth model".

   (a) Why is this name appropriate for the model? How does the equation model how a population might grow?

   (b) What type of function must $P(t)$ be in order to satisfy the equation? What is your reasoning? (Note: You are not asked to solve the equation.)